

Potamogeton perfoliatus

Fact Sheet



Description:

Potamogeton perfoliatus, commonly referred to as redhead grass, is a perennial submerged aquatic macrophyte native to the Chesapeake Bay. It is also one of the most easily recognizable SAV species in the bay because of its flat, oval-shaped leaves. It is often found in slow moving or standing waters. Redhead leaves are flat and oval-shaped with parallel veins. Leaves typically measure 1-4 cm (< 1/3 in to 1 1/2 in) in length and 1-2 cm (1/3 in to 2/3 in) in width. The base of the broad oval leaves wrap around the plant's stem which can appear white or reddish in color. Leaf arrangement is alternate to slightly opposite. Branching is more developed in the upper portion of the plant. In relatively shallow water plants have thicker, darker

green foliage than do plants growing in deeper water. Redhead has an extensive root and rhizome system that securely anchors the plant to the bottom. Drupelets are the sexual propagules of redhead and provide a mechanism for redhead to survive periods of drought that may cause higher than normal salinities.

Distribution:

Redhead thrives in fresh to moderately brackish and alkaline waters typical of Chesapeake Bay tributaries. These plants grow best on firm, muddy soils and in quiet water with slow-moving currents. Due to the width of redhead leaves, they may be more susceptible to epiphytic growth than leaves of other SAV.

Reproduction:

Reproduction in redhead grass can occur both sexually(through seed formation) and vegetatively (through asexual reproduction). Sexual reproduction takes place during early to mid-summer when spikes of tiny flowers emerge from leaf axils at the ends of plant stems and extend above the water surface. Pollen from these flowers is then broadcast naturally to the surrounding habitat through anemophyly, the transfer of pollen by wind. Once fertilization is complete, a fruit begins to develop. As fruits mature they sink below the surface where they release the enclosed seeds. Redhead grass is more frequently propagated vegetatively than through seeds. Asexual reproduction, in redhead occurs through the formation of turions/tubers resting buds at the ends of rhizomes. These buds serve as over-

wintering structures that protect the plant during harsh winter conditions.

Ecological Importance:

In the Chesapeake Bay region, redhead grass is found growing in waters that are fresh to moderately brackish. Redhead grass is considered an excellent food source for waterfowl, particularly redhead ducks. All parts of the plant are important food items for many species of waterfowl. However, turions/tubers, the vegetative propagules of the redhead grass buried in bottom substrate are particularly rich in carbohydrates. The roots, rhizomes and stolons of redhead help to reduce erosion and facilitate colonization by benthic algae and invertebrates. Their foliage offers shelter, support and a locally enriched oxygen supply. Redhead also acts as a nutrient buffer by using dissolved nitrogen and phosphorus for growth, thus making these nutrients unavailable for use by algae.